



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Docket No. FAA-2019-0995; Product Identifier AD-2019-00113-E; Amendment 39-21001; AD 2019-25-01

RIN 2120-AA64

Airworthiness Directives; International Aero Engines, LLC Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain International Aero Engines, LLC (IAE LLC) PW1122G-JM, PW1124G-JM, PW1124G1-JM, PW1127G1-JM, PW1127GA-JM, PW1127G-JM, PW1129G-JM, PW1130G-JM, PW1133GA-JM, PW1133G-JM model turbofan engines. This AD requires replacement of certain low-pressure turbine (LPT) 3rd-stage blades. This AD was prompted by multiple reports of LPT 3rd-stage blade failures causing a reduction of engine thrust. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact International Aero Engines, LLC, 400 Main Street, East Hartford, CT, 06118, United States; phone: (800) 565-0140; email: help24@pw.utc.com; website: <https://fleetcare.pw.utc.com>. You may view this service information at the FAA, Engine and Propeller Standards Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0995.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0995; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kevin M. Clark, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: (781) 238-7088; fax: 781-238-7199; email: Kevin.M.Clark@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA received reports of approximately 21 failures of the affected LPT 3rd-stage blades from 2017 through June 2019. These failures appear to be caused by impact damage occurring when debris passes through the engine. The manufacturer has determined the need to replace any affected LPT 3rd-stage blades with LPT blades made of a different material that is more resistant to impact damage.

In response to these events, the FAA issued a Notice of Proposed Rulemaking (NPRM), Product Identifier 2019-NE-31-AD (84 FR 64441, November 22, 2019), proposing to adopt a new AD to address LPT 3rd-stage blade failures on certain IAE LLC PW1122G-JM, PW1124G-JM, PW1124G1-JM, PW1127G1-JM, PW1127GA-JM, PW1127G-JM, PW1129G-JM, PW1130G-JM, PW1133GA-JM, PW1133G-JM model turbofan engines. This NPRM AD proposes removal from service of affected LPT 3rd-stage blades at the next engine shop visit.

Since June 2019, and prior to the publication of NPRM Product Identifier 2019-NE-31-AD, 20 additional failures of the affected LPT 3rd-stage blades have occurred. The investigation of these failures is on-going. These additional failures have occurred primarily on engines operated by certain airlines. This AD requires an accelerated timeframe for replacement of the affected LPT 3rd-stage blades on certain serial-numbered engines being operated by these airlines. Based on publication of NPRM Product Identifier 2019-NE-31-AD, the FAA would still require replacement of the affected LPT 3rd-stage blades on the remaining affected engines at the next engine shop visit.

This condition, if not addressed, could result in failure of the LPT 3rd-stage blades, failure of one or more engines, loss of thrust control, and loss of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information

The FAA reviewed Pratt & Whitney Service Bulletin PW1000G-C-72-00-0111-00A-930A-D, Issue No. 002, dated October 18, 2019. The service information describes procedures for removal of the affected LPT 3rd-stage blades and their replacement with parts eligible for installation.

FAA's Determination

The FAA is issuing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires, within the times specified in the compliance section of this AD, removal from service of LPT 3rd-stage blades part number (P/N) 5387343, 5387493, 5387473, or 5387503, and their replacement with parts eligible for installation.

FAA's Justification and Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because no domestic operators use this product. It is unlikely that the FAA will receive any adverse comments or useful information about this AD from U.S. operators. Therefore, the FAA finds good cause that notice and opportunity for prior public comment are unnecessary. In addition, for the reason stated above, the FAA finds that good cause exists for making this amendment effective in less than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety and was not preceded by notice and an opportunity for public comment. However, the FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under the ADDRESSES section. Include the docket

number FAA-2019-0995 and Product Identifier AD-2019-00113-E at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this final rule. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

The FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact received about this final rule.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 0 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace set of LPC 3rd-stage blades	408 work-hours X \$85 per hour = \$34,680	\$750,000 per blade set	\$784,680	\$0

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

“Subtitle VII: Aviation Programs” describes in more detail the scope of the Agency’s authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to engines, propellers, and associated appliances to the Manager, Engine and Propeller Standards Branch, Policy and Innovation Division.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2019-25-01 International Aero Engines LLC: Amendment 39-21001; Docket No. FAA-2019-0995; Product Identifier AD-2019-00113-E.

(a) Effective Date

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to International Aero Engines, LLC (IAE LLC) PW1122G-JM, PW1124G-JM, PW1124G1-JM, PW1127G1-JM, PW1127GA-JM, PW1127G-JM, PW1129G-JM, PW1130G-JM, PW1133GA-JM, PW1133G-JM model turbofan engines with an engine serial number listed in paragraphs (g)(1) through (4) of this AD and with low-pressure turbine (LPT) 3rd-stage blades, part number (P/N) 5387343, 5387493, 5387473 or 5387503.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 7250, Turbine Section.

(e) Unsafe Condition

This AD was prompted by reports of failure of certain LPT 3rd-stage blades. The FAA is issuing this AD to prevent failure of these LPT 3rd-stage blades. The unsafe condition, if not addressed, could result in failure of the LPT 3rd-stage blades, failure of one or more engines, loss of thrust control, and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

For any IAE LLC LPT 3rd-stage blade, P/N 5387343, 5387493, 5387473, or 5387503, and with an engine serial number specified in paragraph (g)(1) through (4) of this AD, remove the affected blade from service within the times specified in paragraphs (g)(1) through (4) of this AD and replace with a part eligible for installation.

(1) Within 90 days after the effective date of this AD or at the next engine shop visit, whichever comes first, for engines with serial numbers: P770536; P770620; P770626; P770641; P770644; P770681; P770690; P770693; P770773; P770780; P770813; P770816; P770827; P770841; P770852; P770869; P770870; P770873; P770883; P770894; P770909; P770512; P770762; P770484; P770805; P770716; P770836; or P770942.

(2) Within 180 days after the effective date of this AD or at the next engine shop visit, whichever comes first, for engines with serial numbers: P770347; P770981; P770814; P770825; P770964; P770622; P770763; P771019; P770980; P770985; P771048; P770487; P770911; P770960; P770932; P770934; P770444; P770993; P770996; P770893; P770320; P771036; P771040; P770797; P771047; P770537; P771026; P771050; P771046; P771074; P771062; P771080; P771099; P771164; or P770984.

(3) Within 270 days after the effective date of this AD or at the next engine shop visit, whichever comes first, for engines with serial numbers: P770966; P770482; P770170; P770272; P770646; P771167; P770495; P771162; P770463; P770853; P771015; P771032; P771165; P771170; P771092; P771093; P771174; P771135; P770597; P771113; P770469; P771154; P770244; P771059; P770287; P770740; P771107; P771118; P770366; P770607; P770577; P771219; P771258; P771207; P771211; P771138; P771140; P770594; P771020; P771279; P771280; P770499; P770279; P771273; P770978; or P770916.

(4) Within 360 days after the effective date of this AD or at the next engine shop visit, whichever comes first, for engines with serial numbers: P770579; P771188; P770722; P770603; P770715; P770768; P771120; P771132; P770782; P771288; P770504; P771238; P770676; P770128; P770191; P771277; P770749; P770800; P770381; P770395; P770218; P770374; P770256; P770452; P770460; P771141; P770138; P770750; P770645; P770756; P770308; P770143; P770439; P770509; P770127; P770139; P770172; P770176; P770129; P770140; P770173; P770640; P770742; P771006; P770505; P771161; P770315; P770263; P770724; P770259; P770149; P770269; P770486; P770614; P770975; P770946; P770629; or P771166.

(h) Definitions

(1) For the purpose of this AD, an “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation of the engine without subsequent engine maintenance does not constitute an engine shop visit.

(2) For the purpose of this AD, a “part eligible for installation” is any LPT 3rd-stage blade that does not have a P/N 5387343, 5387493, 5387473, or 5387503.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

For more information about this AD, contact Kevin M. Clark, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: (781) 238-7088; fax: 781-238-7199; email: Kevin.M.Clark@faa.gov.

(k) Material Incorporated by Reference

None.

Issued in Burlington, Massachusetts on November 25, 2019.

Robert J. Ganley,
Manager, Engine and Propeller Standards Branch,
Aircraft Certification Service.

[FR Doc. 2019-25884 Filed: 11/26/2019 4:15 pm; Publication Date: 11/29/2019]